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(2001.2.28)(71) Applicant: 000138082  
Menikon Company, Ltd.  
21-19 Aoi 3-chome, Naka-ku,  
Nagoya-shi, Aichi-ken(72) Inventor: Yasuaki Tsushi  
c/o Menikon Company, Ltd.  
21-19 Aoi 3-chome, Naka-ku,  
Nagoya-shi, Aichi-ken(74) Agent: 100103252  
Sanetaka Kasai

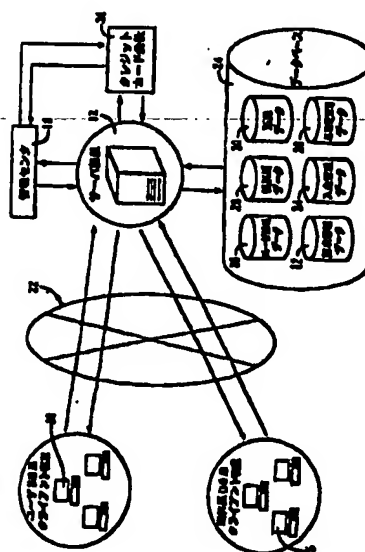
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(54) [Title of the Invention]: A Contact Lens Sales System and Sales Method

(57) [Abstract]

[Problem] To provide a novel system for contact lens sales whereby the user can purchase contact lenses, which are implements for medical treatment, with little burden of effort and time on the prerequisite of a medical examination by an ophthalmologist and whereby ophthalmologic information such as the state of use of contact lenses by the user, history information and state of visual capacity can be collected and accumulated efficiently over long periods of time.

[Means of Solution] By using a communications system in which the computers 12, 16 and 20 are used, a contact lens support relationship among the three components, the ophthalmologist 14, the user 18 and the main commercial provider 19 is established. Accumulation and management of diagnostic information obtained from medical examination of the user 18 by the ophthalmologist 14 is effected in a comprehensive way by the storage device under the management of the main commercial provider 10.



[keyed by figure numbers]  
20 - client unit for user  
16 - client unit for ophthalmologist  
15 - management center  
12 - server device  
38 - credit card company  
26 - user information data  
28 - pharmacologist data  
30 - sales data  
32 - request management data  
34 - payment management data  
36 - office management data  
38 - credit card company  
[matter at right inside oval]: data base

**[Claims]**

**[Claim 1]** A contact lens sales method characterized in that, in response to sending of diagnostic information together with information for identifying said user obtained when an ophthalmologist diagnoses a contact lens user through a communications network device from a client device for an ophthalmologist that is at the service of the ophthalmologist to a server device that is at the service of the main provider which provides contact lenses

said diagnostic information, corresponding to the aforementioned user, together with the information identifying said user, is stored in a storage device that the aforementioned user device can use,

in that, in response to the fact that an order signal for contact lenses including the information identifying the user that is provided by the aforementioned pharmacologist is generated to the server device in the service of the aforementioned main provider from the client device for the user which is in the service of the user through the communication network device,

the aforementioned main provider provides to said user contact lenses suited to the diagnostic information regarding said user that is stored in the aforementioned storage device taking as the condition the fact that the aforementioned information for identifying the user that is contained in the aforementioned order signal conforms to the aforementioned information for identifying the user that has been stored in the aforementioned storage device.

**[Claim 2]** A contact lens sales method as described in Claim 1 in which the aforementioned diagnostic information that is sent to the aforementioned server device from the aforementioned ophthalmologist and that is stored in the aforementioned storage device contains information with a time limit, in which, when sending of the aforementioned order signal for contact lenses from the user exceeds the time limit in said time-limited information, an instruction signal for a supplementary examination is sent from the aforementioned server unit to the aforementioned client unit for the pharmacologist and/or to the aforementioned client unit for the user, in which said pharmacologist, on the basis of the results of the supplementary examination, sends a content correction or a correction signal for extending the time limit relevant to the aforementioned diagnostic information to the aforementioned user unit, in which the aforementioned diagnostic information in the aforementioned storage device is updated on the basis of the aforementioned correction signal and in which the aforementioned main provider provides contact lenses to said user on the basis of said updated diagnostic information.

**[Claim 3]** A contact lens sales method as described in Claim 2 in which the aforementioned supplementary examination by the ophthalmologist is executed by indirect examination by the ophthalmologist by means of telephone conversation with the user or by means of questionnaires.

**[Claim 4]** A contact lens sales method as described in any one of Claims 1 to 3 in which, when the aforementioned ophthalmologist gives information for identifying said user to the aforementioned user, the diagnostic information necessary for specifying contact lenses suited to said user is not disclosed and in that this diagnostic information is disclosed in signals generated from the aforementioned client unit for the ophthalmologist to the aforementioned server unit.

**[Claim 5]** A contact lens sales method as described in any one of Claims 1 to 4 in which, the aforementioned main provider provides contact lenses to the aforementioned user on the basis of the aforementioned diagnostic information, in which the fact that contact lenses have been provided to said user and the information regarding the contact lenses that have been provided are stored in the aforementioned storage device in correspondence to said user and in which notification is made to the aforementioned ophthalmologist who has provided the diagnostic information.

[Claim 6] A contact lens sales method as described in any one of Claims 1 to 5 in which the aforementioned primary supplier pays an information input office fee to the aforementioned ophthalmologist who has sent the aforementioned diagnostic information from the aforementioned client unit for the ophthalmologist to the aforementioned server unit.

[Claim 7] A contact lens sales method as described in any one of Claims 1 to 6 in which guidance information such as the location in regard to the ophthalmologist who is equipped with the client unit for ophthalmologists that sends the aforementioned diagnostic information to the aforementioned client unit for the user is stored in advance in a storage device that the aforementioned server unit can use, and, in which, in response to inquiries from the aforementioned client unit for user by the aforementioned user to the aforementioned server unit, the guidance information of the ophthalmologist is sent and provided to said client unit for use from said server unit.

[Claim 8] A contact lens sales method as described in any one of Claims 1 to 7 in which, of the information regarding the aforementioned user that is stored in the aforementioned storage device, the disclosure-permissible information that has been set in advance is sent and provided to the aforementioned client unit for use as required from said user from the aforementioned server unit taking as the condition conformance with the identification information for said user.

[Claim 9] A contact lens sales method as described in any one of Claims 1 to 8 in which, of the information regarding the aforementioned user that is stored in the aforementioned storage device, the disclosure-permissible information that has been sent in advance is sent and provided to the aforementioned client unit for use as required from the aforementioned ophthalmologist from the aforementioned server.

[Claim 10] A contact lens sales method as described in any one of Claims 1 to 9 in which a credit company that is different from the aforementioned main supplier is used as the payment collection system for the aforementioned contact lenses.

[Claim 11] A contact lens sales method as described in any one of Claims 1 to 9 in which provision of the aforementioned contact lenses from the aforementioned main provider to the aforementioned user is effected through provision windows such as parcel delivery service and existing stores and in which payment for said contact lenses is collected from said user at said provision windows.

[Claim 12] A contact lens sales method as described in any one of Claims 1 to 11 in which the internet is used as the communications network for connecting the aforementioned server unit to the aforementioned client unit for use and/or the aforementioned client unit for the ophthalmologist.

[Claim 13] A contact lens sales system characterized in that it is constructed to include a server unit in the service of the contact lens main provider,

several client unit for users that are in the service of contact lens users and that are connected to the aforementioned server unit through a communications network device, several client unit for ophthalmologists that are in the service of the ophthalmologist who examines the aforementioned user and that are connected to the aforementioned server unit through the communications network device and a storage device that stores diagnostic information that is sent to the aforementioned server unit from the aforementioned client unit for the ophthalmologist through the communications network device and that is obtained by examination of the aforementioned user by the aforementioned ophthalmologist and in that the aforementioned main supplier provides to the aforementioned user contact lenses conforming to the diagnostic information on said user that is stored in said storage device taking as the condition that the contact lens signal number corresponds to that sent from the aforementioned client unit for use to the aforementioned server unit through the communications network device and that the user identification information contained in said order signal conforms to the corresponding user identification information that is stored in the aforementioned storage device.

[0014] A contact lens sales system as described in Claim 13 in which the aforementioned order signal for the contact lenses corresponds to that sent from the aforementioned client unit for use to the aforementioned server unit through the communications network device and that the user identification information contained in said order signal is verified with the corresponding user identification information that is stored in the aforementioned storage device

and in which processing that specifies and indicates contact lenses suited to said user identification information that is stored in the aforementioned storage device is executed by a program that is introduced into the aforementioned server unit taking as the condition that the user identification information contained in these signal orders conforms to the corresponding user identification information stored in the storage device.

[0015] A program for the contact lens sales system which is a program that is introduced into a computer equipped with a server unit in the service of the contact lens main provider,

a storage device that the aforementioned service unit can use,

several client unit for users that are in the service of the aforementioned contact lens user and that are connected to the aforementioned server unit through the communications network device and

several client units for ophthalmologists that are in the service of the ophthalmologists who examine the aforementioned users and that are connected to the aforementioned user units through the communications network device,

which evaluates whether or not the diagnostic information that has been obtained by examination of the aforementioned user by the aforementioned ophthalmologist together with the identification information on said user corresponds to what has been sent from the aforementioned client unit for ophthalmologist to the aforementioned server unit through the aforementioned communications network device, whether the diagnostic information and user identification information corresponds to said user and is stored in the aforementioned storage device, whether the contact lens order signal corresponds to that sent from the aforementioned client unit for user to the aforementioned server unit through the communications network device and whether the user identification information contained in said order signal conforms to the corresponding user identification information that is stored in the aforementioned storage device, and which specifies contact lenses, and, which, taking as the condition that the user identification information contained in the order signal corresponds to the corresponding user identification information that is stored in the storage device, specifies contact lenses suited to said user diagnostic information that is stored in said storage device and which displays then as the contact lenses to be provided.

[Claim 16] A server unit for contact lens sales that is in the service of the main provider that provides contact lenses to the user characterized in that

it is equipped with a storage device that is connected to several client unit for ophthalmologists in the service of respective ophthalmologists through respective communications networks and that stores diagnostic information on contact lenses determined by the aforementioned ophthalmologists together with said user identification information respecting said users that are sent from these client unit for ophthalmologists through the said communications network device, and, in that, taking as the condition that the contact lenses order information from these users corresponds to what has been sent from the client unit for user in the service of said user through the communications network device and that the user identification information contained in said order signal conforms with the corresponding user identification information that is stored in the aforementioned storage device, a provision indication signal is output so that contact lenses suited to said user that are stored in said storage unit are provided.

**[Claim 17]** A server unit for contact lens sales as described in Claim 16 in which the aforementioned main provider stores in the aforementioned storage device the fact that contact lenses have been provided and information on the provided contact lenses corresponding to said user by inputting information on the contact lenses that have been provided to said user and in which the fact that contact lenses have been provided and information on the provided contact lenses are sent to the aforementioned client unit for ophthalmologist that provided the diagnostic information on said user.

**[Claim 18]** A client unit for ophthalmologists for contact lens sales which is in the service of the ophthalmologist who examines the user of the contact lenses

whereby the diagnostic information on the aforementioned user together with said user identification information is sent through the communications network device to the server unit in the service of the main supplier that supplies the contact lenses and is stored in advance in the storage device with which said server unit is equipped, by which means, when an order signal that contains this user identification information is received by said server unit, said user diagnostic information in said server unit can be specified, and, whereby, by sending an information request signal to said server unit through the aforementioned communications network, the information stored in the aforementioned storage device can be received and displayed as required.

**[Detailed Description of the Invention]**

**[0001]**

**[Technological Field]** This invention relates to a sales system for contact lenses, and, in particular, it relates to a novel contact lens sales system and sales method that uses computers in which, by using a computer system for the sale of contact lenses, convenience and improvement for management and use of information relating to contact lenses that involve the user can be improved whereby the user can conveniently acquire appropriate contact lenses on the basis of the examination by the ophthalmologist.

**[0002]**

**[Background Technology]** Contact lenses have been used conventionally for correction of aspects of visual capacity as near-sightedness, far-sightedness, astigmatism and aging vision and many types of structures and materials are used. In particular, in recent years, there has been an increase in use of contact lenses, an increase in stores handling contact lenses and a diversification of distribution routes for contact lenses.

**[0003]** However, contact lenses are implements of medical treatment, and, when a user purchases contact lenses, it is important to make evaluations of whether or not the user has selected contact lenses suitable for him and to select and determine contact lenses of the suitable shape and optical properties for each user.

**[0004]** The evaluations and determinations at the time of purchase of contact lenses in this way should be performed by an ophthalmologist having abundant specialized knowledge and experience relating to contact lenses. Because information such as the results of past diagnoses by the users ophthalmologist and the users experience in wearing contact lenses is frequently effective data for evaluation of appropriate contacts lenses for the user and for selection of suitable contact lenses, it is desirable to accumulate and manage such information regarding the contact lenses of individual users.

**[0005]** However, in recent years there has been a tendency for contact lenses to be handled as an ordinary high volume consumer good. In particular, in combination with the increase of wearers of conventional contact lenses known as hard type and soft type lenses, there has been an expansion of sales of contact lenses of an extremely short period of use known as disposable lenses. As a result of this, the tendency toward high volume consumption of contact lenses has been accelerated and not only contact lens sales shops but ophthalmologists as well have not been able to keep up with the increase in customers, the flow of customers accompanying the increase in sales shops and the diversification of contact lenses. In

conjunction with these circumstances, the accumulation and management of information regarding customer's contact lenses by sales shops and ophthalmologists have reached a state that is fundamentally undesirable.

[0006] Moreover, associated with the high volume commercialization of contact lenses, there is a great deal of variation in specialized knowledge and experience even among the ophthalmologists who examine users at the time of purchase of contact lenses, and, coupled with the insufficient accumulation and management of user information as described above, there is the danger that appropriate diagnosis of users and selection of contact lenses will not be effected.

[0007]

[Problems to be Solved] This invention, which was developed with the circumstances described above as the background, has the objective of providing a contact lens sales method of a novel configuration and a novel technology relating to it in which the problem to be solved is, at the time of purchase of the contact lens, to stabilize the examination of the user by the ophthalmologist and the level of selection of the contact lens.

[0008] A further objective of this invention is to provide a contact lens sales method of a novel configuration and a novel technology relating to it whereby efficient accumulation and management of individual information regarding the contact lenses of the users is effected and whereby the accumulated information can be used when the contact lenses are selected.

[0009]

[Means of Solution] We shall now describe the modes of this invention for the purpose of solving these problems. The structural elements that are used in each of the modes described below can be used as far as possible in any desired combination. Further, the modes and technological characteristics of this invention are not limited to what is described below and should be understood as matters that can be recognized on the basis of the ideas of this invention that can be grasped by those familiar with the industry from what is described here.

[0010] First, the first mode of this invention is characterized in that it is a contact lens sales method that, (a) in response to sending of diagnostic information together with information for identifying said user obtained when an ophthalmologist diagnoses a contact lens user through a communications network device from a client device for an ophthalmologist that is at the service of the ophthalmologist to a server device that is at the service of the main provider which provides contact lenses, that (b) said diagnostic information, corresponding to the aforementioned user, together with the information identifying said user, is stored in a storage device that the aforementioned user device can use, that (c) in response to the fact that an order signal for contact lenses including the information identifying the user that is provided by the aforementioned pharmacist is generated to the server device in the service of the aforementioned main provider from the client device for the user which is in the service of the user through the communication network device and (d) that the aforementioned main provider provides to said user contact lenses suited to the diagnostic information regarding said user that is stored in the aforementioned storage device taking as the condition the fact that the aforementioned information for identifying the user that is contained in the aforementioned order signal conforms to the aforementioned information for identifying the user that has been stored in the aforementioned storage device.

[0011] In accordance with the sales method of this invention, as a result of the user of the contact lenses being examined by a specified ophthalmologist, this diagnostic information, using a communications network device in which a computer is used, is sent to a server unit in the service of the main supplier of the contact lenses and is stored in a storage device, after which the user, using the communications network, can acquire the contact lenses directly from the main supplier by submitting the order for contact lenses to the main supplier.



[0012] For this reason, the user, after having been examined by an ophthalmologist, can order and acquire contact lenses directly from home so that there is no necessity for waiting one's turn at a contact lens sales shop being examined by the ophthalmologist or of having a contact lens that satisfies the prescription by the pharmacologist prescribed. For this reason, time and effort are greatly reduced for purchase of contact lenses by users.

[0013] Moreover, no matter where the ophthalmologist who performs the examination on the user is located, as long as the ophthalmologist is someone who can use a client unit for ophthalmologists that constitutes the computer system for contact lens sales that operates in conjunction with the server unit, the diagnostic information on the user is sent to all of the server units and can be stored and accumulated in the storage devices. For this reason, the information regarding the contact lenses of each user can be accumulated and managed in a comprehensive way in the server units without imposing any burdens on the users or ophthalmologists in respect to data management. For this reason, the accumulated information can be used efficiently, for example, as information for medical treatment.

[0014] Because a main provider of contact lenses can easily assess ophthalmologists equipped with a client unit for ophthalmologists consisting of a computer system for contact lens sale that operates in conjunction with the server units through this computer system, for example, the ophthalmologists that can use the client unit for ophthalmologists can be limited in accordance with competency, and, as required, by performing research studies, the competence of the ophthalmologists can be maintained above a fixed level. By this means, examination of a higher level and of stable quality of users by ophthalmologists and appropriate selection of contact lenses can be provided.

[0015] It goes without saying that the sales method of commercial products in accordance with this invention as described above can be used advantageously when selling not only hard and soft type contact lenses but also various other types of contact lenses such as disposable contact lenses.

[0016] In the sales method of this invention, the client unit for ophthalmologists in the service of the ophthalmologist and the user client in the service of the user may be devices that can perform sending and receiving of information with the server unit through the communications network device. For example, in addition to independent personal computers, computers connected to small scale LAN can be used. In particular, portable PDA (Personal Digital Assistant), hand-held computers, cell phones, PHS, and, possibly, simpler communications devices such as household telephones and television units, can be used as client unit for users. Further, various types of computers that can perform sensing and receiving of information between the client unit for ophthalmologists and the client unit for users through communications network devices and that can perform storage and management of data that is stored in the storage devices can be used as the server units in the service of the commercial product main supplier. Moreover, the internet can be used ideally as the communications network device that connects the client unit for ophthalmologists and the client unit for users to the server unit. However, in addition, such internet related systems as i-mode (registered trademark), java-i-mode and L-mode as well as digital broadcast television systems and dedicated lines can also be used. In addition, it is not necessary that the communications network device that connects the client unit for users to the server unit be identical to the communications network device that connects the client unit for ophthalmologists to the server unit. For example, the client unit for users may be connected to the server unit by an internet line and the ophthalmologist client line may be connected by a dedicated line or a telephone line. Moreover, information can be sent and received by the client unit for ophthalmologists and client unit for users that are connected to the server unit through the agency of the communications network device. In addition, it is also possible to establish sensing and receiving of information using FAX and mail to increase utilization capacity.

[0017] When diagnostic information and user identification information are sent from the client unit for ophthalmologists to the server unit, for example, an information entry form is displayed as an image in the client unit for ophthalmologists by a program that is introduced into the client unit for ophthalmologists, or, in response to access of the client unit for ophthalmologists, the server unit sends the information entry

form to the client unit for ophthalmologists and it is displayed as an image, by which means the ophthalmologist can easily input necessary items.

[0018] Moreover, in this mode, the diagnostic information that is sent from the ophthalmologists client unit to the server unit and that is stored in the storage unit is information that includes information that specifies the individual and data that can specifically specify the contact lens suited to said user. For example, it consists of information that includes the name, the year, month and day of birth, telephone number, address, and, in addition, sex of the user, the appropriate type of contact lens (name), base curve and power, DIA (outside diameter dimension), astigmatism axis, astigmatism frequency, added frequency and differentiation for the right eye and for the left eye. Further, this type of information together with the diagnostic information that is sent from the ophthalmologists client unit to the server unit and that is stored in the storage device are ID and passwords whereby the identification of the user can be confirmed. For example, numbers for the diagnostic report and the prescription that are associated with each user can be used by the ophthalmologist.

[0019] When the diagnostic information and the user identification information is sent by the ophthalmologist from the client unit for ophthalmologist to the server unit, it is desirable to send a registration completion signal from the server unit to the client unit for ophthalmologist. At this time, it is desirable that the registration content be included in the registration completion signal in order to confirm the content that has been registered to the ophthalmologist. The server apparatus and the contact lens main supplier may also send this registration completion signal to the ophthalmologist by a suitable means of communication such as FAX.

[0020] The second mode of this invention, like the aforementioned first mode, is a conventional contact lens sales method and is characterized in that the aforementioned diagnostic information that is sent to the aforementioned server device from the aforementioned ophthalmologist and that is stored in the aforementioned storage device contains information with a time limit, in that, when sending of the aforementioned order signal for contact lenses from the user exceeds the time limit in said time-limited information, an instruction signal for a supplementary examination is sent from the aforementioned server unit to the aforementioned client unit for the pharmacologist and/or to the aforementioned client unit for the user, in that said pharmacologist, on the basis of the results of the supplementary examination, sends a content correction or a correction signal for extending the time limit relevant to the aforementioned diagnostic information to the aforementioned user unit, in that the aforementioned diagnostic information in the aforementioned storage device is updated on the basis of the aforementioned correction signal and in that the aforementioned main provider provides contact lenses to said user on the basis of said updated diagnostic information. In accordance with the contact lens sales method of this invention, when a time limit is set on the diagnostic information that is stored in the server unit, it is possible to provide contact lenses to the user rapidly in response to it.

[0021] The third mode of this invention, like the aforementioned second mode, is a conventional contact lens sales method and is characterized in that the aforementioned supplementary examination by the ophthalmologist is executed by indirect examination by the ophthalmologist by means of telephone conversation with the user or by means of questionnaires. In this mode, when there is no particular problem, it is not necessary for the user to go to the ophthalmologist and effort on the part of the user can be further reduced. For users who use contact lenses for which repurchase is necessary in a short time it is possible to confer easily with the ophthalmologist on minor matters while avoiding the danger of purchasing contact lenses without receiving any examination whatsoever by the ophthalmologist. Because of this, it is effective in preventing problems before they occur and in solving problems before they become serious. It is not always necessary for an ophthalmologist who performs an indirect examination to be the ophthalmologist who performs a face to face examination with the user. For example, it is possible for the main provider of the contact lenses to designate a specialized ophthalmologist who performs indirect examinations. Further, these indirect examinations may also be performed using the internet.



[0022] The fourth mode of this invention, like the aforementioned first to third modes, is a conventional contact lens sales method and is characterized in that, when the aforementioned ophthalmologist gives information for identifying said user to the aforementioned user, the diagnostic information necessary for specifying contact lenses suited to said user is not disclosed and in that this diagnostic information is disclosed in signals generated from the aforementioned client unit for the ophthalmologist to the aforementioned server unit. Because, in this mode, misuse of diagnostic information can be prevented and the ophthalmologist gives identification information to the user and the server unit, disclosure of this identification information can be advantageously prevented and confirmation of the user on the basis of the identification information in the server unit can be performed easily with high reliability.

[0023] The fifth mode of this invention, like the aforementioned first to fourth modes, is a conventional contact lens sales method and is characterized in that, when the aforementioned main provider provides contact lenses to the aforementioned user on the basis of the aforementioned diagnostic information, the contact lenses have been provided to said user and the information regarding the contact lenses are stored in the aforementioned storage device corresponding to the said user and notification is made to the aforementioned ophthalmologist who has provided the diagnostic information. In this mode, by storing the findings and course of use of the contact lenses as information in the storage unit that stores all of the diagnostic information on the user, it is possible to manage and use it as information corresponding to each user. Further, by notifying the ophthalmologist of the information on the contact lenses provided for the user, management of the information on the user, who is the client, can be performed by the ophthalmologist, and, by ascertaining the state of use of the contact lenses by the user, a high level of diagnosis and advice can easily and rapidly be provided for the user.

[0024] The sixth mode of this invention, like the aforementioned first to fifth modes, is a conventional contact lens sales method and is characterized in that the aforementioned primary supplier pays an information input office fee to the aforementioned ophthalmologist who has sent the aforementioned diagnostic information from the aforementioned client unit for the ophthalmologist to the aforementioned server unit. In this mode, by paying some of the profit that the main provider obtained by sale of the contact lenses to the ophthalmologist, cooperation of the ophthalmologist can easily be obtained at the time of accumulation of user diagnostic information for storage information.

[0025] The seventh mode of this invention, like the aforementioned first to sixth modes, is a conventional contact lens sales method and is characterized in that guidance information such as the location in regard to the ophthalmologist who is equipped with the client unit for ophthalmologists that sends the aforementioned diagnostic information to the aforementioned client unit for the users is stored in advance in a storage device that the aforementioned server unit can use, and, in which, in response to inquiries from the aforementioned client unit for users by the aforementioned user to the aforementioned server unit, the guidance information of the ophthalmologist is sent and provided to said client unit for users from said server unit. In this mode, the utility of the method of this invention can be increased by guiding the user who purchases contact lenses using the sales method of this invention as to suitability on the part of an ophthalmologist who uses the method of this invention. An internet line, for example, can be used advantageously for inquiries from the client unit for users to the server unit and for providing guidance information from the server unit to the client unit for users. Guidance information of the ophthalmologist that is sent from the server unit to the client unit for users, in addition to sending all of the information of the ophthalmologist that is stored in the storage device, refers as well to user information that is sent from the client unit for users. For example, it is desirable to select only an ophthalmologist that is appropriate for said user in geographic terms and in terms of operating time, to send the information and to display it on the client unit for users and to effect selection or confirmation for the user.

[0026] The eighth mode of this invention, like the aforementioned first to seventh modes, is a conventional contact lens sales method and is characterized in that, of the information regarding the aforementioned user that is stored in the aforementioned storage device, the disclosure-permissible information that has been set in advance is sent and provided to the aforementioned client unit for users as

required from said user from the aforementioned server unit taking as the condition conformance with the identifying information for said user. In this mode, because the individual information on the user is stored in the storage device and because of self-management by the user, it is possible to use information relating to the contact lenses that has been stored in the storage device over a long period.

[0027] The ninth mode of this invention, like the aforementioned first to eighth modes, is a conventional contact lens sales method and is characterized in that, of the information regarding the aforementioned user that is stored in the aforementioned storage device, the disclosure-permissible information that has been set in advance is sent and provided to the aforementioned client unit for users from the aforementioned ophthalmologist from the aforementioned server. In this invention, diagnosis of the user can be performed more competently and more rapidly by the ophthalmologist using the information relating to the user stored in the storage diagnosis for diagnosis.

[0028] The tenth mode of this invention, like the aforementioned first to ninth modes, is a conventional contact lens sales method and is characterized in that a credit company that is different from the aforementioned main supplier is used as the payment collection system for the aforementioned contact lenses. In this mode, the effort and the burden of risk on the part of the main provider of the contact lenses are reduced. For example, by using payment by credit card, the user can rapidly process payment of the bill for the contact lenses on the internet and user convenience can be attained.

[0029] The eleventh mode of this invention, like the aforementioned first to ninth modes, is a conventional contact lens sales method and is characterized in that provision of the aforementioned contact lenses from the aforementioned main provider to the aforementioned user is effected through provision windows such as parcel delivery service and existing stores and in which payment for said contact lenses is collected from said user at said provision windows. In this mode, for example, because it is possible for the user to set a time that is convenient for receipt of the contact lenses and because the bill for the contact lenses can be transmitted by hand and paid, rapid processing can be achieved while maintaining a higher degree of handling safety.

[0030] The twelfth mode of this invention, like the aforementioned first to eleventh modes, is a conventional contact lens sales method and is characterized in that the internet is used as the communications network for connecting the aforementioned server unit to the aforementioned client unit for users and/or aforementioned client unit for ophthalmologists. In this mode, by using the internet, which is used widely throughout the world, convenience in connecting the client unit for users and the client unit for ophthalmologists to the server unit can be increased and a more easily usable contact lens sales method can be realized.

[0031] The thirteenth mode of this invention, like the aforementioned first to twelfth modes, relates to a contact lens sales system that can be used appropriately and is characterized in that it is constructed to include (e) a server unit in the service of the contact lens main provider, (f) several client units for users that are in the service of contact lens users and that are connected to the aforementioned server unit through a communications network device, (g) several client units for ophthalmologists that are in the service of the ophthalmologist who examines the aforementioned user and that are connected to the aforementioned server unit through the communications network device and (h) a storage device that stores diagnostic information that is sent to the aforementioned server unit from the aforementioned client unit for ophthalmologists through the communications network device and that is obtained by examination of the aforementioned user by the aforementioned ophthalmologist and in that (i) the aforementioned main supplier provides to the aforementioned user contact lenses conforming to the diagnostic information on said user that is stored in said storage device taking as the condition that the contact lens signal number corresponds to that sent from the aforementioned client unit for user to the aforementioned server unit through the communications network device and that the user identification information contained in said order signal conforms to the corresponding user identification information that is stored in the aforementioned storage device.

[0032] The fourteenth mode of this invention, which is a contact lens sales system that is constructed as described in the aforementioned thirteenth mode, is characterized in that (j) the aforementioned order signal for the contact lenses corresponds to that sent from the aforementioned client unit for users to the aforementioned server unit through the communications network device and that the user identification information contained in said order signal is verified with the corresponding user identification information that is stored in the aforementioned storage device and in that (k) processing that specifies and indicates contact lenses suited to said user identification information that is stored in the aforementioned storage device (l) is executed by a program that is introduced into the aforementioned server unit taking as the condition that the user identification information contained in these signal orders conforms to the corresponding user identification information stored in the storage device. This program is based on the structure of the computer program. For example, when personal computers that are connected to the internet and that are capable of sending and receiving e-mail are used as the client unit for users, the client unit for ophthalmologists and the user unit, the sales system based on this mode can be executed by installing said program in the server unit only.

[0033] The fifteenth mode of this invention relates to a program for a contact lens sales system that, during execution of the contact lens sales methods in accordance with any of the aforementioned first mode to twelfth mode, can be introduced into and used advantageously in a computer system such as the server unit that is connected through the agency of a communications network device and is characterized in that it is a program for the contact lens sales system which is a program that is introduced into a computer equipped with (m) a server unit in the service of the contact lens main provider, (n) a storage device that the aforementioned service unit can use, (o) several client units for users that are in the service of the aforementioned contact lens user and that are connected to the aforementioned server unit through the communications network device and (p) several client units for ophthalmologists that are in the service of the ophthalmologists who examine the aforementioned users and that are connected to the aforementioned user units through the communications network device, (q) which evaluates whether or not the diagnostic information that has been obtained by examination of the aforementioned user by the aforementioned ophthalmologist together with the identification information on said user corresponds to what has been sent from the aforementioned client unit for ophthalmologist to the aforementioned server unit through the aforementioned communications network device, whether the diagnostic information and user identification information corresponds to said user and is stored in the aforementioned storage device, whether the contact lens order signal corresponds to that sent from the aforementioned client unit for user to the aforementioned server unit through the communications network device and whether the user identification information contained in said order signal conforms to the corresponding user identification information that is stored in the aforementioned storage device, and which specifies contact lenses, and, which, taking as the condition that the user identification information contained in the order signal corresponds to the corresponding user identification information that is stored in the storage device, specifies contact lenses suited to said user diagnostic information that is stored in said storage device and which displays them as the contact lenses to be provided.

[0034] Further, the sixteenth mode of this invention relates to a contact lens sales server unit that can be used during execution of the contact lens sales methods in accordance with any of the aforementioned first mode to twelfth mode and that is in the service of the main provider that provides contact lenses to users and is a contact lens server unit characterized in that it is equipped with a storage device that is connected to several client units for ophthalmologists in the service of respective ophthalmologists through respective communications networks and that stores diagnostic information on contact lenses determined by the aforementioned ophthalmologists together with said user identification information respecting said users that are sent from these client units for ophthalmologists through the said communications network device, and, in that, taking as the condition that the contact lenses order information from these users corresponds to what has been sent from the client unit for users in the service of said users through the communications network device and that the user identification information contained in said order signal conforms with the corresponding user identification information that is stored in the aforementioned storage device, a provision indication signal is output so that contact lenses suited to said user that are stored in said storage unit are provided.

[0035] The seventeenth mode of this invention is a server unit for contact lens sales that is constructed in accordance with the aforementioned sixteenth mode characterized in that the aforementioned main provider stores in the aforementioned storage device the fact that contact lenses have been provided and information on the provided contact lenses corresponding to said user by inputting information on the contact lenses that have been provided to said user and in which the fact that contact lenses have been provided and information on the provided contact lenses are sent to the aforementioned client unit for ophthalmologist that provided the diagnostic information on said user. This mode can be used appropriately in execution of the contact lens sales method in accordance with the fifth mode described above.

[0036] The eighteenth mode of this invention relates to a client unit for ophthalmologists that can be used appropriately during execution of the contact lens sales method in accordance with any one of the aforementioned first to twelfth modes and is characterized in that the diagnostic information on the aforementioned user together with said user identification information is sent through the communications network device to the server unit in the service of the main supplier that supplies the contact lenses and is stored in advance in the storage device with which said server unit is equipped, by which means, when an order signal that contains this user identification information is received by said server unit, said user diagnostic information in said server unit can be specified, and, whereby, by sending an information request signal to said server unit through the aforementioned communications network, the information stored in the aforementioned storage device can be received and displayed as required. By using this type of client unit for ophthalmologists, sending of diagnostic information and user identification information to the server unit and acquisition processing of necessary user information from the server unit can both be performed easily. In particular, an increase in the reliability and processing speed of the diagnosis of the user by the ophthalmologist can be achieved advantageously by referencing the past diagnostic information on the user that is stored in the storage device of the server unit, and, as required, the stored information on contact lenses used in the past.

[0037]

[Mode of Execution of the Invention] In order to clarify this invention more specifically, we shall present a detailed description of the mode of execution of this invention by reference to the figures.

[0038] First, Figure 1 shows, as an overall schematic illustration, the configuration of one mode of execution of a contact lens sales system that can be used satisfactorily for executing the contact lens sales method in accordance with this invention and that is constituted in accordance with this invention. The sales system of this mode of execution is constructed as a computer system in which (a) the server unit 12, which is managed by the management center 10 as the commercial main provider and that is in the service of said management center 10, (b) the client unit for ophthalmologists 16 that is in the service of the ophthalmologist 14 and (c) the client unit for users 20 that is in the service of the user 18 are connected to each other via the internet 22 as the communications network device using the World Wide Web.

[0039] The aforementioned server unit 12, client unit for ophthalmologists 16 and client unit for users 20, so that information can be sent and received using the internet, can all be constituted by computers equipped with an input device such as a keyboard and a mouse and of a display device such as a CRT or liquid crystal display. In particular, the server unit 12 is constituted of a WWW server that provides a web page on the internet 22 and the client unit for ophthalmologists 16 and the client unit for users 20 are constituted by the insertion of WWW browser that peruses the web page on the internet. Moreover, suitable software may be inserted into the server unit 12, the ophthalmologist clients unit 16 and the client unit for users 20 so that various types of information can be especially sent and received using e-mail on the internet, and, as required, software for encoding and decoding send and receive signals.

[0040] Further, although the server unit 12 is basically constituted as a single entity, many client units for ophthalmologists 16 or client units for users 20 may be established. In particular, client units for users 20 can be constituted appropriately by means of personal computers, portable terminal computers, cell phones and PHS by connecting personal computers that are connected to the internet 22, portable terminal computers, cell phones and PHS to and accessing Web pages that are publicly disclosed on the internet 22.

In addition, the ophthalmologist client units 16 can be installed in designated medical clinics and hospitals of ophthalmologists on the conditions that they are ophthalmologists endowed with knowledge, experience and evaluative capacity above a level set in advance who have been confirmed to be able to provide specialized diagnosis relating to contact lenses continuously and stably, and, as required, can make prescribed contracts with the management center 10 (commercial main provider). For example, determinations can be made in advance, taking into consideration population ratios, to assure that the sales service areas as a whole are located at suitable intervals from each other.

[0041] Further, the sales system of this mode of execution is managed by the server unit 12 and is equipped with the data base 24 as a storage device. The data base 24, in addition to being a data base in the narrow sense, can be constituted of various types of storage units that can be managed by computers equipped with suitable storage media such as RAM, CD-R, CD-RW, DVD-R, DVD-RAM, MO, MD, PD and HD and data storage may be effected in a file format that the server unit 12 directly manages. In addition, when a data base 24 in the narrow sense is used, as is publicly known, the server unit 12 and the data base 24 may constitute a data base system containing a suitable schema.

[0042] The data base 24 can be constructed to contain the user information data 26, the pharmacologist data 28, the sales data 30, the request management data 32, the payment management data 34 and the office fee management data 36.

[0043] The user information data 26 stores the individual information on the user that has been examined by the pharmacologist 14 and includes (a) specified information on the user, (b) diagnostic information and (c) user identification information. Of these, (a) the specified information on the user includes such data as, for example, the name, address, date of birth, age, sex, telephone number, occupation, work address or school and e-mail address of each user as well as the credit card number, effective time limit of the credit card and questionnaire information. In addition, as required, it includes the prescribing date and the effective time limit of the prescription relevant to the diagnostic information, the number that specified the hospital (ophthalmology department) that issued the prescription and the number that specified the physician (ophthalmology department physician). Further, (b) the diagnostic information is such diagnostic information as the prescription that was issued on the basis of the diagnosis by the ophthalmologist 14 and includes sufficient information for the purpose of specifically specifying the contact lenses suited to the user by clearly stating, for example, the type of contact lens, the base curve, power (diopters) and DIA (daiya [phonetic]\*). (c) The user identification information is the information recorded for each user for the purpose of specifying each user. For example, it is constituted of an ID that is issued to each user and that is transmitted to each user by the ophthalmologist 14 at the time of diagnosis by the ophthalmologist 14.

[0044] The ophthalmologist data 28 stores individual information on the ophthalmologists that constitute the sales system. For example, such data are stored as the individual name of each ophthalmologist, the name and address of the medical clinic or hospital with which he or she is affiliated, the date of registration in the system, the number of staff, telephone number, store identification number, information relating to the users who have been diagnosed, the number of associated users, the number of records of diagnostic information sent to the server unit 12, other questionnaire information and e-mail address.

[0045] The sales data 30 stores the information on contact lenses that have been sold in accordance with the sales system of this mode of execution. For example, such data as the type and brand name of the contact lens provided to the user, specifications (base curve, power, DIA), astigmatism correction and relative acuteness of vision based on the provided contact lenses, astigmatism axis, astigmatism frequency, added frequency, date provided and provision method together with information relating to the user are recorded.

\* [Translator's Note: Transliterated phonetically from the Japanese. As such, the spelling may differ from other transliterations.]



[0053] Further, the server unit 12, in response to receiving the diagnostic information described above, the ophthalmology department No. and the prescription No. from the ophthalmology client unit 16, in step: S5, returns the information received from the client unit for ophthalmologist 16 one time to the client unit for ophthalmologist 16 through the internet 22 and its content is confirmed by the ophthalmologist 14. By this means, input mistakes on diagnostic information, which is important, are prevented. Further, as required, the server unit 12 receives a results signal of information content confirmation that is sent from the client unit for ophthalmologist 16 and it may be confirmed in the server unit 12 that the results the information content confirmation are not mistaken.

[0054] Next, in step: S6, the server unit 12 gives the prescription No. that has been sent from the client unit for ophthalmologist 16 to the user 18. Giving of this prescription No. to the user 18 can be performed by sensing a message by e-mail from the server unit 12 through the internet 22 to the corresponding client unit for user 20.

[0055] Following that, the server unit 12, in step: S7, stores the diagnostic information on the user, the ophthalmology department No. and the prescription No. that have been sent from the client unit for ophthalmologist 16 and that the server unit 12 has received in the data base 24 as the storage device and the operation is completed. When information is stored in the data base 24, related information concerning the users 18 is created, for example, in the server unit 12, so that the diagnostic information, ophthalmology department No. and Prescription No. are stored by the relation with each user 18 and the diagnostic information, ophthalmology department No. and Prescription No. are stored at the same time in the data base 24. Further, after completion of information storage in the data base 24 in the in step: S7, as required, payment of the information input office fee to ophthalmologist 14 who has performed the information storage operation is executed by the management center 10 by the client unit for ophthalmologist 16. Further, after storage of the various types of information related to the user 18 in the data base 24 as described above, identification information (ID) specific to each user 18 is assigned to each user from the server unit 12 and is sent by e-mail or regular mail.

[0056] After the diagnostic information on the user 18 that has been examined has been registered in the data base 24 in this way, the user 18 can directly order and acquire contact lenses suited to himself from the management center 10, which is the commercial product provider. Figure 4 shows the flow chart for the entire processing process from ordering of the contact lenses by the user 18 up to their receipt. In this mode of execution, the user 18 pays the bill for the contact lenses using a credit card company that he himself has already entered.

[0057] First, in step: T1, the user 18 orders contact lenses directly from the commercial product provider. This ordering is performed by sending an order signal that includes the information necessary for ordering of the contact lenses from the client unit for user 20 to the server unit 12 via the internet 22. Specifically, for example, the user 18 connects to the internet 22 using the client unit for user 20, inputs the required items on the order form which the management center 10, which is the main provider, provides by means of the server unit 12 and which is carried on the Web page, makes the order by sending it to the server unit 12 or sends an order statement on which the required items are entered to the e-mail address of the server unit 12 which has been ascertained in advance from the ophthalmologist 14. At this time, the server unit 12 can send the order form to the client unit for user 20 in response to the access of the user 18.

[0058] The information that is necessary for the order signal for contact lenses includes the individual information on the user 18 in addition to the IS (user identification information) of the user 18 that is given by the server unit 12 after storage of information relating to the user 18 in the data base 24 as described above. For example, the name, address, date of birth, age, sex, telephone number, occupation, work address or school of the user 18, the credit card company and number and its effective expiration date, and, as required, questionnaire information, the ophthalmologist who performed the examination, the date



of the examination and history of contact lens used in the past are input as this individual information. The e-mail address may be input as one of the necessary items of information in the order. However, the server unit 12, which has received the application item by e-mail, may also automatically record the e-mail address of the user 18 which serves as the sending destination.

[0059] The server unit 12, which has received the order signal for contact lenses including the user ID, in step: T2, on the basis of the user ID information included in the application item that has been sent, confirms whether or not the user 18, who is the orderer, is the same person as the user who has been registered previously in the data base 24. When the user 18, who is the orderer, cannot be found among the users registered in the data base 24, in step: T3, notification in which the reason for nonallowal is clearly specified is sent from the server unit 12 to the client unit for user 20, after which processing is concluded. On the other hand, when the user 18, who is the orderer, is found among the registered users of the data base 24, there is an advance to step: T4. In step: T4, when a time limit on the diagnostic information on the user stored in the data base 24 is given, an evaluation is made as to whether or not the time limit has passed. A major reason for this evaluation is to avoid inconvenience attributable to the fact that a state has arisen in which the contact lens should be updated to suit said user 18 due to changes in the status of the user 18 when the evaluation indicates that an appropriate time has elapsed since the diagnosis by the ophthalmologist 14. The effective time limit on this information can be set, for example, in accordance with laws relating to medical treatment. Within the legally permitted range, the ophthalmologist 14 can set the time limit taking into consideration the state of the user 18.

[0060] If it is confirmed that the information stored in the data base is effective in terms of the time limit, there is advance to step: T8, and check of the credit card is executed. This check is performed by investigating whether the information on the credit card is true or false, and, as required, the history of the use of this sales system in the past by said user 18. Data are sent on items relating to the credit card from the server unit 12 using a dedicated line to the credit card company 38, by which means the request is made to the credit card company 38. When there is a major problem with the results of the check to the extent that member registration is not allowed, in step: T3, the results of the check indicating that member registration is not allowed together with the reason are sent by the server unit 12 to the client unit for user 20 and processing is concluded. In this case, the information on the user 18 who is not allowed together with the results of the check may also be recorded and stored in the data base 24.

[0061] When there is no problem in the results of the check, there is an advance to step: 9 and the order confirmation information is sent, for example, by e-mail, from the server unit 12 to the client unit for user 20, by which means the fact of the order by the user 18 and the content of the order are confirmed. Following that, there is an advance to step: 10. In the server unit 12, fee request data for the purpose of making the request to the user 18 for the fee are prepared as the contact lens bill, and, next, in step: T11, the fee request data are sent using a dedicated line from the server unit 12 to the credit card company 38, by which means levy of the contact lens fee is requested to the credit card company 38.

[0062] Next, in step: T12, the processing information, including the fact and content of the contact lens order from the user 18 and the sending of request data to the credit card company 38, is stored in the data base 24, after which, there is advance to step: T13. The server unit 12 issues a command to send the lens order information to the management center 10 so that specified contact lenses suited to the user 18 are sent out. This command is received and the management center 10 issues a shipping directive for said contact lenses to the distribution center 40 which has said contact lenses in its inventory. In accordance with this directive, the distribution center 40 sends out the contact lenses which are forwarded directly to the address of the user 18. By this means, the user 18 can acquire contact lenses that are suited to himself.

[0063] Together with sending the contact lenses to the user 18, the management center 10, in step: T14, sends to the server unit 12 the information that the contact lenses have been sent to the user 18 and this information is stored in the data base 24. Further, the management center 10 notifies the ophthalmologist

14 who diagnosed the user 18 that contact lenses have been provided in accordance said diagnostic information for said user 18, by which means this information can be used in subsequent ophthalmologic treatment of the user 18, and, as required, additional information input office fees can be paid to said ophthalmologist 14 by the management center 10, which is the main provider, as remuneration for cooperation. By this means, processing of provision of contact lenses to the user 18 who is registered in the data base 24 is concluded.

[0064] On the other hand, when an evaluation has been made in step: T4 as described above that the time limit on the diagnostic information on the user that is stored in the data bank 24 has passed, there is an advance to step: T5 and notification for supplementary examination is sent. The content of this notification for supplementary examination is a request for supplementary examination by the ophthalmologist 14 to the user 18. For example, notification of the request for performance of a supplementary examination by the ophthalmologist 14 is effected by sending an e-mail to from the server unit 12 to the client unit for user 20. Next, in step: T6, the user 18 goes to the ophthalmologist 14 and receives a simple supplementary examination. Then, in T7, the ophthalmologist 14 prepares, corrects and makes additions to the diagnostic information regarding the user 18 on the basis of the results of the supplementary examination, and, in addition, on the basis of this diagnostic information, prepares new diagnostic information regarding the user 18 in the data base 24 as well as corrections and additions to it. By this means, the necessary information so that the effective time limit can be extended is issued from the client unit for ophthalmologist 16 to the server unit 12.

[0065] When there are no problems with the supplementary examination in step: T6, the ophthalmologist 14 does not need to have a direct meeting with the user 18 and the ophthalmologist 14 may conduct an indirect examination of the user 18 using the telephone or a questionnaire. In that case, the notification in step T6 that a supplementary examination is necessary is made to the ophthalmologist 14 instead of to the user 18 or in addition to the user 18 and the user 18 can be contacted by the ophthalmologist 14. It is not always necessary that the ophthalmologist 14 be the same ophthalmologist 14 who examined the user 18 previously. In the case of indirect examination in particular, an ophthalmologist can be used who specializes in performing indirect examinations.

[0066] In step: T7, after the time limit on the information stored in the data base 24 relating to the user 18 has been extended and has been included in the effective time limit of the prescription information for the user 18, there is again a return to step: T1 and processing of the receipt of the order signal from the user 18 of the contact lenses is performed following the procedure described previously.

[0067] Consequently, by means of the sales system for contact lenses in accordance with this invention as described above, building of a sales system and provision of contact lenses making active use of said sales system can be performed efficiently by using a computer system including the internet 18 without intensifying an excess burden on the user 18 or the ophthalmologist 14 and without requiring a great worker burden in the management center 10. In this, a large amount of data regarding each user 18, including contact lens frequency and suitability, is automatically and continuously stored and accumulated over a long period of time in the data base 10 as history data. By this means, users, ophthalmologists, and, as required, other facilities can easily obtain valuable data that can be used and serve as references.

[0068] Moreover, when this sales system is used, the user 18, when there is some free time and after having been examined by an ophthalmologist, in the case it becomes necessary, can order and receive contact lenses directly from the client unit for users, and, at the time of acquisition of contact lenses, the burdens of time and efforts on the user 18 can be greatly reduced.

[0069] When there are no particular problems, for example, after an indirect examination has been performed by the ophthalmologist 14 or in a fixed period thereafter, the user 18, as a result of reporting periodically to the ophthalmologist 14 using a telephone or questionnaire or of simple indirect examinations,

can ascertain extension or updating of the effective time limit of the information that is stored in the data base 24. When a system of this kind is used, the convenience of the user 18 can be further increased.

[0070] Thus, by means of the system of this invention, by increasing the convenience to the user 18 while making examination of the user 18 by the ophthalmologist 14 an obligatory prerequisite, for example, users who repeatedly acquire and use contact lenses on the basis of the perception of consumption of a large amount of material can be decreased without being examined completely by an ophthalmologist and by correspondence sales and internet sales. The sales method of this invention is also an extremely effective means of reducing or preventing the occurrence of damage attributable to dangerous wearing of contact lenses.

[0071] Above, we have presented a detailed description of the mode of execution of this invention. However, this is strictly an example and it is to be understood that this invention is not limited in any way by the specific descriptions of the mode of execution presented above.

[0072] For example, in the mode of execution presented above, an example was described of the case in which payment of the bill for the contact lenses by the user 18 was made by credit card. However, methods that can be used for payment of bills include a fee exchange home delivery system or direct sending of cash. In addition, as shown in Figure 5, existing shops that are widely dispersed throughout the nation such as convenience stores and post offices can be used as windows for providing contact lenses. A mode of payment based on direct payment of fees at such provider windows can be adopted or selected. Figure 5 is a block diagram corresponding to Figure 2 that shows the overall processing for acquiring contact lenses using the sales system of this invention. The convenience store 42, which has entered into a contract with the main provider of the contact lenses as a provider window for contact lenses, in accordance with a user delivery request for lenses received from the server center 20, acting as the agent, executes sale of the contact lenses received from the distribution center 40 on the condition that the identity of the user 18 who has come to the shop has been confirmed by the identification information and the contact lens fee that has been collected from the user 18 is paid to the management center 10. In addition, this type of sales system can be used in combination with a direct delivery system to the user 18 from the distribution center 40 as shown in Figure 2. By including selection information on the commodity receipt method in the lens order signal that the user 18 sends (step: T1 in figure 4), there is a desirable mode whereby the user can select the method of receipt of the commodity from among several selection arms. In the sales system shown in Figure 5, the components other than the contact lens fee levy system are constructed basically in the same way as in the mode of execution described previously as shown in figure 2 for which reason we have omitted a detailed description of them here.

[0073] The providing service to the user who has purchased contact lenses using this sales system can be one in which, for example, the information regarding the contact lens is sent at regular intervals or irregular intervals by e-mail from the server unit 12 to the client unit for user 20 or in which a service such as visual examinations at regular intervals is performed by the ophthalmologist 14, with the results being stored in the data base 24, by which means the user 18 and the ophthalmologist 14 can ascertain and manage the state of the visual capacity of the user 18.

[0074] In addition, consultations in person or by email limited to users who purchase contact lenses using this system may be conducted at the management center 10, by which means further improvement of service and amplification of management information can be achieved.

[0075] Further, one of the supports that is provided to ophthalmologists who cooperate with this sales system is that it is possible to construct a system for the introduction of ophthalmologists to users. Such information as the location, days of operation, examination times and telephone numbers of the ophthalmologists is provided by e-mail at the request of registered members or data regarding ophthalmology such as contact lenses and visual capacity that have accumulated in the data base 24 of the sales system can be provided to cooperating ophthalmologists directly or through registered members.

[0076] Further, in this sales system, the subjects of the service can be limited to specified members. By this means, an even higher degree of control of members and of information management can easily be achieved and amplification of service content is made possible. In this, as a membership service mode, for example, members are registered on the condition that they satisfy screening conditions by the credit card company. Moreover, an individual is acknowledged as a user on the condition that he continues to pay the membership fee at a fixed regular time each month and only an individual who is acknowledged as a user can use the sales system for contact lenses described above. For example, as additional services, member users may be provided periodic examinations by designated ophthalmologists without cost, may be provided replacement and exchange of contact lenses without cost and may be provided a higher degree of service by setting sales shops for specified contact lenses and care goods as service windows

[0077] In addition, although we are not listing them individually, this invention can be executed in modes to which various changes, revisions and improvements on the basis of knowledge of those in the industry. In addition, it goes without saying that these modes of execution are included within the scope of this invention as long as they do not depart from the essential nature of this invention.

[0078]

[Effect of This Invention] As should be evident from what is described above, by means of this invention, users can purchase contact lenses, which are medical treatment devices, with examination by an ophthalmologist as a prerequisite with little burden of effort and time, by which means safety of use of contact lenses can advantageously be assured.

[0079] Moreover, in the sales system for contact lenses that is constructed in accordance with this invention, the state of use and historic information on the contact lenses of each user and information regarding the state of visual capacity can be collected and accumulated efficiently over a long period using a special computer system constructed to contain a communications network device without intensifying an excess burden on the user and ophthalmologist. On the basis of the information obtained in this way, a more specialized higher degree of support can be provided to users who use the contact lenses and ophthalmologists.

#### [Detailed Description of the Figures]

[Figure 1] This is a schematic diagram that shows one mode of execution of the structure of hardware for executing the contact lens sales method in accordance with this invention.

[Figure 2] This is a block diagram for illustrating one specific processing mode when the contact lens sales method in accordance with this invention is executed using the system shown in Figure 1.

[Figure 3] This is a flow chart that shows the processing procedure that stores the user information in the data base when the contact lens sales method in accordance with this invention is executed using the system shown in Figure 1.

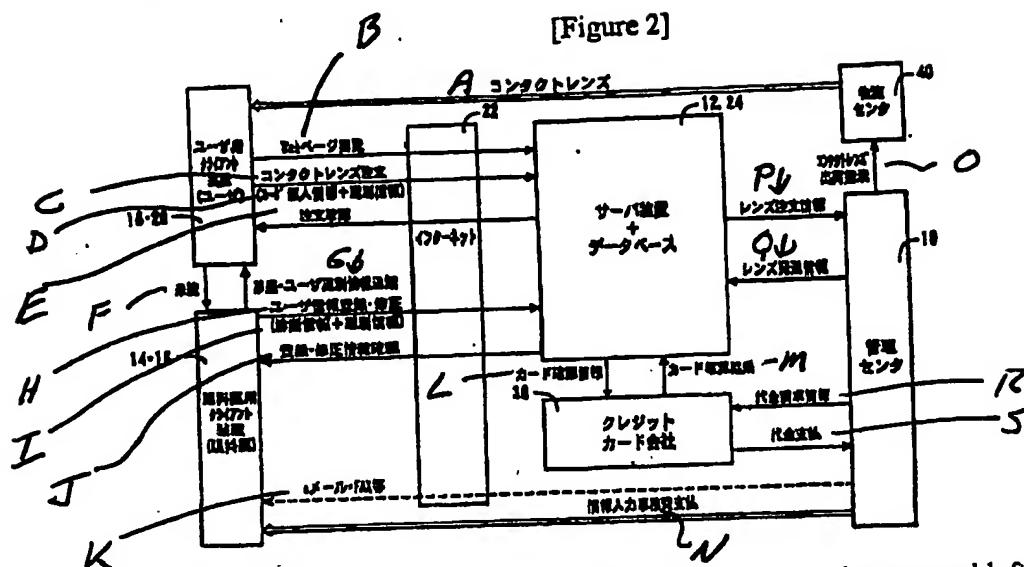
[Figure 4] This is a flow chart that shows the processing procedure that sends the contact lenses in response to the order of the user that is registered in the data base when the contact lens sales method in accordance with this invention is executed using the system shown in Figure 1.

[Figure 5] This is a block diagram that shows processing mode different from that in Figure 2 when the contact lens sales method in accordance with this invention is executed using the system shown in Figure 1.

**[Explanation of Symbols]**

- 10 management center  
12 server unit  
14 ophthalmologist  
16 client unit for ophthalmologist  
18 user  
20 client unit for user  
22 internet  
24 database

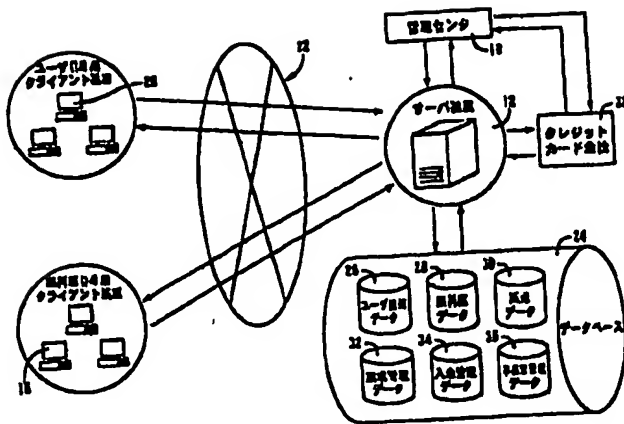
**[Figure 2]**



[Key is by numbers in figure for boxes. In all instances order is top to bottom and left to right]

- Key is by numbers in figure 10.1
- 18, 20 client unit for user (user)  
14, 16 client unit for ophthalmologist (ophthalmologist)  
22 internet  
12, 24 server unit + data base  
38 credit card company  
40 distribution center  
10 management center  
A contact lens  
B Web page perusal  
C contact lens ordering  
D (user individual information + identification information)  
E order confirmation  
F coming to clinic  
G examination and user identification information notification  
H user information registration and correction  
I (diagnostic information + identification information)  
J registration and correction information confirmation  
K e-mail, FAX, etc.  
L card confirmation information  
M card confirmation result  
N information input office fee payment  
O contact lens shipment indication  
P lens order information  
Q lens sending information  
R bill request [illegible]  
S bill payment

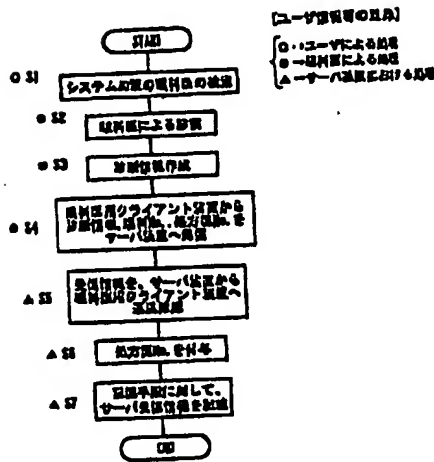
[Figure 1]



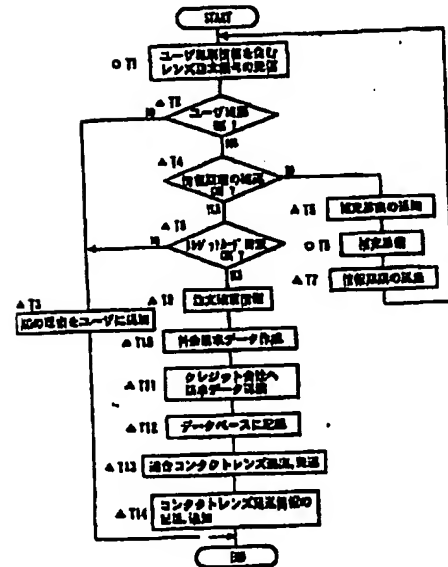
[keyed by figure numbers]

- 20 - client unit for user
- 16 - client unit for ophthalmologist
- 15 - management center
- 12 - server device
- 38 - credit card company
- 26 - user information data
- 28 - pharmacist data
- 30 - sales data
- 32 - request management data
- 34 - payment management data
- 36 - office management data
- 38 - credit card company
- [matter at right inside oval]: data base

[Figure 3]



[Figure 4]

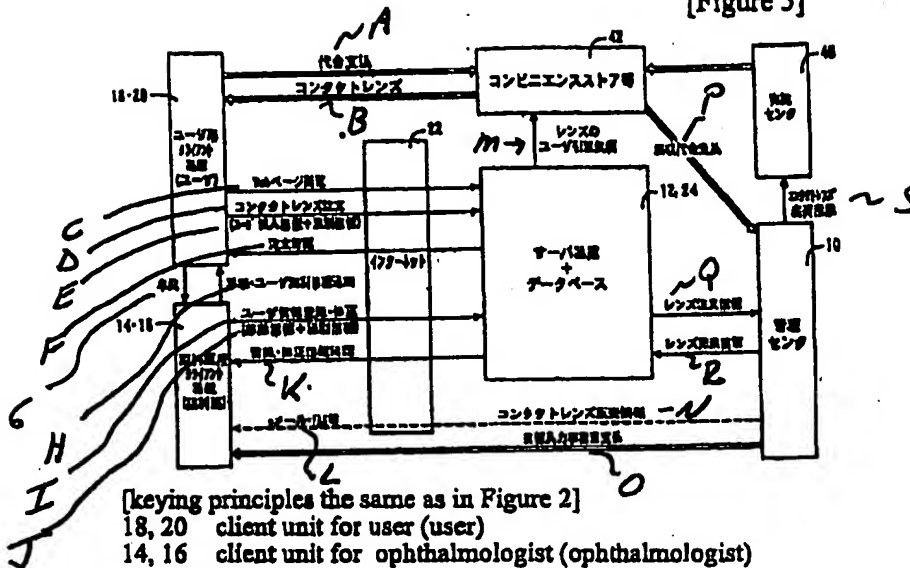


- START
- [registration of user information]
    - - processing by user
    - - processing by ophthalmologist
    - △ - processing by server unit
  - S1 retrieval of ophthalmologists affiliated with the system
  - S2 examination by ophthalmologist
  - S3 preparation of diagnostic information
  - S4 sending of diagnostic information, ophthalmology department No. and prescription No. to server unit from client unit for ophthalmologist
  - S5 return confirmation of received information from server unit to ophthalmologist client unit
  - S6 giving of prescription No.
  - S7 storing server receipt information in storage device
  - END

- START
- T1 sending of lens order information including user identification information
  - T2 user confirmation, OK?
  - T4 confirmation of information time limit, OK?
  - T5 notification for supplementary examination
  - T8 credit card check, OK?
  - T6 supplementary examination
  - T7 extension of information time limit
  - T3 notification to user of reason for NO
  - T9 order confirmation information
  - T10 preparation of bill request data
  - T11 sending of request data to credit card company
  - T12 storage in data base
  - T13 selection and sending of suitable contact lenses
  - T14 storage and notification of contact lens send information
  - END



[Figure 5]



[keying principles the same as in Figure 2]

- 18, 20 client unit for user (user)
- 14, 16 client unit for ophthalmologist (ophthalmologist)
- 22 internet
- 42 contact lens store, etc.
- 12, 24 server unit + data base
- 38 credit card company
- 40 distribution center
- 10 management center
- A bill payment
- B contact lens
- C Web page perusal
- D contact lens ordering
- E (user individual information + identification information)
- F order confirmation
- G coming to clinic
- H examination and user identification information notification
- I user information registration and correction
- J (diagnostic information + identification information)
- K registration and correction information confirmation
- L e-mail, FAX, etc.
- M request for transfer of lens to user
- N contact lens sale information
- O information input office fee payment
- P collection of fee payment
- Q lens order information
- R lens sending information
- S contact lens shipment information

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